

Docket No: 696-254 A

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT OPERATIONS

In re Applica	tion of:)	
Letzs	ch, Warren S.)	Group Art Unit: Not yet known
Serial No.: Filed:	10/674,865 September 30, 2003))))	Examiner: Not yet known
For:	IMPROVED DEEP CA) TALYT	IC CRACKING PROCESS

New York, N.Y. 10036 January 7, 2004

Mail Stop DD Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

SIR/MADAM:

Request is hereby made for consideration of this information disclosure statement. The following references are being cited under 37 C.F.R. § 1.97.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:

> Mail Stop DD Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

On January 7, 2004

Alan B. Clement, Reg. No. 34,563

Docket No: <u>696-254 A</u>

Document Designation	Relevance
AA (U.S. 4,980,053)	Relates to production of gaseous olefins by catalytic conversion of hydrocarbons.
AB (U.S. 5,009,769)	Relates to process for catalytic cracking of hydrocarbons.
AC (U.S. 5,043,058)	Relates to quenching downstream of an external vapor catalyst separator.
AD (U.S. 5,232,675)	Relates to rare earth-containing high-silica zeolite having penta-sil structure and process for the same.
AE (U.S. 5,326,465)	Relates to process for the production of LPG rich in olefins and high quality gasoline.
AF (U.S. 5,380,690)	Relates to cracking catalyst for the production of light olefins.
AG (U.S. 5,565,176)	Relates to catalytically cracking paraffin rich feedstocks comprising high and low concarbon components.
AH (U.S. 5,670,037)	Relates to process for producing light olefins by catalytic conversion of hydrocarbons.
AI (U.S. 5,766,558)	Relates to fluid catalytic cracking process and apparatus.
AJ (U.S. 5,981,818)	Relates to integrated cracking and olefins derivative process utilizing dilute olefins.
AK (U.S. 6,010,618)	Relates to FCC process with two zone short contact time reaction conduit.
AL (U.S. 4,892,643)	Relates to upgrading naptha in a single riser fluidized catalytic cracking operation employing a catalyst mixture.
AM (U.S. 5,087,349)	Relates to process for selectively maximizing product production in fluidized catalytic cracking of hydrocarbons.

Docket No: <u>696-254 A</u>

AN (U.S. 5,196,172) Relates to apparatus for the fluid catalytic

cracking of hydrocarbon feed employing a separable mixture of catalyst and sorbent

particles.

AO (U.S. 5,314,610) Relates to staged catalytic cracking process.

BA (EP 1046 696 A2) Relates to a catalytic conversion process for

producing isobutene and isopuraffine - enriched

gasoline.

Full text copies for the prior art are enclosed herewith. It is respectfully requested that this art be considered by the Examiner in the above-identified application and made of record therein.

It is believed that no fee is required for the submission of this Information Disclosure Statement under 37 C.F.R. § 1.97 (b). However, if a fee is due, the Commissioner is hereby authorized to charge it to deposit account 08-1540.

Respectfully submitted,

Alan B. Clement

Registration No. 34,563

HEDMAN & COSTIGAN, P.C. 1185 Avenue of the Americas New York, N.Y. 10036-2646 (212) 302-8989

				INFORMATION DISCL
*	Çeze	MD I	MARK	Substitute for form 1449A/PTO
B			Und	the Paperwork Reduction Act of 1995, no pers
R	JAN	0 9	2004 leas	ype a plus sign (+) inside this box → +

PTO/SB/08A (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of

Complete if Known					
Application Number	10/674,865				
Filing Date	September 30, 2003				
First Named Inventor	Letzsch, Warren S.				
Group Art Unit	Not yet known.				
Examiner Name	Not yet known.				
Attorney Docket Number	696-254A				

				U.S. PATENT DOCI	JMENTS	
Examiner Initials*	Cite No.1	U.S. Patent Number	Document Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA	4,980,053		Li et al.	12/25/1990	
	AB	5,009,769		Goelzer	04/23/1991	
	AC	5,043,058		Forgac et al.	08/27/1991	
	AD	5,232,675		Shu et al.	08/03/1993	
	AE	5,326,465		Yongqing et al.	07/05/1994	
	AF	5,380,690		Zhicheng et al.	01/10/1995	
	AG	5,565,176		Johnson et al.	10/15/1996	
	AH	5,670,037		Zaiting et al.	09/23/1997	
	ΑI	5,766,558		Letzsch et al.	06/16/1998	
	ΑJ	5,981,818		Purvis et al.	11/09/1999	
	AK	6,010,618		Lomas	01/04/2000	
	AL	4,892,643		Herbst et al.	01/09/1990	
	AM	5,087,349		Goelzer et al.	02/11/1992	
	AN	5,196,172		Weinberg et al	03/23/1993	
	AO	5,314,610		Gartside	05/24/1994	
					 - - - - - - - - - 	
			<u> </u>			

	FOREIGN PATENT DOCUMENTS										
Examiner Initials*	Cite No.1	Office		reign Pate Number		Kind	Code ⁵	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Ţ6
	BA		EP	1046	696	A2		Xu et al.	10/25/2000		-
						-					-
		-				\dashv				44-4-	+
			_								-
											\dagger
						İ					

Examiner	 Date	
Signature	 Considered	

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.